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Nine Forward–Backward Translations of the Hopkins Symptom Checklist-25 With Cultural Checks

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Introduction: The Hopkins Symptom Checklist-25 (HSCL-25) is an effective, reliable, and ergonomic tool that can be used for depression diagnosis and monitoring in daily practice. To allow its broad use by family practice physicians (FPs), it was translated from English into nine European languages (Greek, Polish, Bulgarian, Croatian, Catalan, Galician, Spanish, Italian, and French) and the translation homogeneity was confirmed. This study describes this process.

Methods: First, two translators (an academic translator and an FP researcher) were recruited for the forward translation (FT). A panel of English-speaking FPs that included at least 15 experts (researchers, teachers, and practitioners) was organized in each country to finalize the FT using a Delphi procedure.

Results: One or two Delphi procedure rounds were sufficient for each translation. Then, a different translator, who did not know the original version of the HSCL-25, performed a backward translation in English. An expert panel of linguists compared

the two English versions. Differences were listed and a multicultural consensus group determined whether they were due to linguistic problems or to cultural differences. All versions underwent cultural check.

Conclusion: All nine translations were finalized without altering the original meaning.

Keywords: depression, Hopkins Symptom Checklist-25, depressive disorder, HSCL-25, diagnostic tool

INTRODUCTION

How to manage people with depression in primary care is a growing challenge worldwide. Indeed, Family practice physicians (FPs) are at the frontline, while secondary care services are increasingly under threat (1–4). Depression manifests (for laypersons) itself in various ways: (i) as a syndromic "disorder" in which contextual distress, anxiety, and somatoform disorders overlap; (ii) as a suffering that is difficult to express, acknowledge, and discuss; and (iii) as a long-term condition with subjective and objective features that can be measured (5). Due to these inter-individual variabilities, FPs may experience difficulties in detecting depression and may easily misjudge the symptoms and their intensities, if they do not use formal instruments (6, 7). Moreover, the depression incidence and prevalence rates differ widely in family practice, due to complex contextual variations, differences in healthcare systems, concepts of disorder, objectives, and practices, as well as cultural variations in symptom expression (8, 9). These difficulties may lead to inappropriate care and potential side effects due to drugs' use as well as public health issues (10–12). A short discussion of the results obtained using a relevant questionnaire is often the first step toward an open dialogue with the patient.

Collaborative primary care mental health models can improve the management of patients with depression. To this aim, the European General Practice Research Network (EGPRN) developed a collaborative research agenda (13). Specifically, the EGPRN adopted a standardized methodology in which European FPs experts from different healthcare systems and who speak different languages and have different cultural references set up an established consensus procedure to identify reliable, standardized, efficient, and ergonomic tools for depression assessment that take into account cultural and linguistic differences (14–17). These tools need to be accepted by both FPs and psychiatrists to improve collaboration (18). They must be feasible in the FP's surgery, in primary or psychiatric care, and also suitable for research purposes (19). Finally, they must be validated and reliable.

A handbook was developed to guide the selection of a single tool that would be then translated into different languages, using a forward and backward translation procedure (inspired by Brislin's translation model). This is a consensual procedure that has been used in other cross-cultural studies (20–22). At each step, the key points and purposes were debated and decided by consensus among the involved European experts. First, a systematic literature review, according to the PRISMA criteria, allowed the identification of seven tools that had been validated against a psychiatric examination using the DSM-IV or DSM-5 major depression criteria (23). Then, a consensus procedure (RAND/UCLA Appropriateness Method) led to the selection of one tool on the basis of its effectiveness, reliability, and ergonomics (24): the self-report Hopkins Symptom Checklist-25 (HSCL-25) (23–26). This is a validated, reliable diagnostic tool to assess (27, 28) the presence and severity of anxiety and depression symptoms during the previous week (29, 30). Its specificity compared with clinical interview is robust: between 0.78 to 0.88, the reliability (Alpha de Cronbach) is between 0.87 to 0.97 (31). The HSCL-25 short length self-administered format is perfectly suited for use in busy primary care settings with many competing demands. It may represent a practical instrument to alert FPs to potentially depressive or anxious symptomatology.

A qualitative procedure with the FP's involvement was necessary to obtained that were linguistically and culturally equivalent to the original version, ecologically embedded in primary care.

The objective of the present study was to translate the HSCL-25 into the languages of the different team members, without losing homogeneity, and in a language suitable to the primary care context (22, 32).

MATERIALS AND METHODS

This three-step standardized study included: (i) forward translation (FT), (ii) backward translation (BT), and (iii) cultural check (8, 33, 34) (**Figure 1**).

The FT was carried out with an incorporated Delphi consensus procedure (35–37). This is a systematic, interactive method that involves a panel of experts using iterative procedures (38) and that allows reaching consensus in a rigorous way (39–41). This process requires:

- Anonymity of participants to ensure response reliability and avoid contamination,
- Iteration, which allows participants to refine their views in the light of the group work progress,
- Feedback control under the investigator's responsibility,
- Statistical aggregation of the group's responses to allow a quantitative and qualitative analysis of data (42–45).

The EGPRN French team ensured that this protocol was followed throughout the process. The FT of the different HSCL-25 items had to be validated daily by the expert panel, composed of EGPRN members, all actively involved in the process.

Abbreviations: BT, backward translation; CE, cultural effect; DSM, diagnostic and statistical manual of mental disorders; EGPRN, European general practice research network; FPs, family practice physicians; FT, forward translation; PRISMA, preferred reporting items for systematic reviews and meta-analyses; RAND, research and development; RAND/UCLA, research and development/University of California Los Angeles.

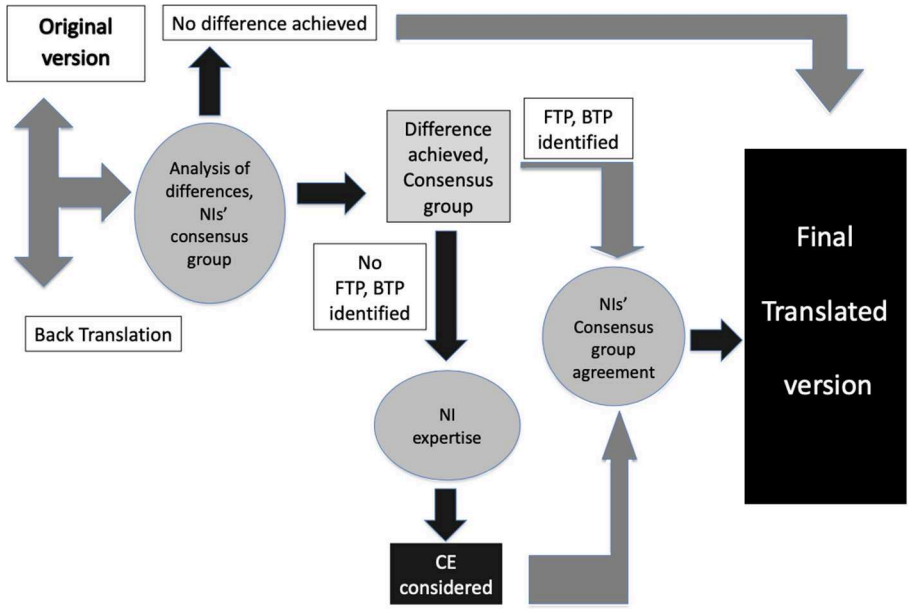

FIGURE 1 | The translation procedure. CE, cultural effect; BTP, backward translation problems; FTP, forward translation problems.

Briefly, for each language, the National Investigators (NI) selected translators knowledgeable about healthcare terminology to organize two translation (FT and BT) teams who were blind to the other team's work. The FT team included one member of the FP research group and one official translator for each country. The BT team involved one (or two) FPs and one official translator (22).

The NIs also recruited a panel of FP experts in their own countries, anonymized the experts' responses, and allocated an identification number for later identification (42). Initially, 20 to 30 experts were recruited per country to secure the presence of at least 15 participants till the project end. The FP experts were selected using the following inclusion criteria: native of their country of residence and speaking their native language, and fluent in English (32). At least half of them had to be involved in teaching and/or research activities. To assess the panel representativeness of their country FPs, the experts provided the following information: sex, practice type, years of practice, and publication record (46).

According to the Brislin's Guidelines for the Process of Cross-Cultural Adaptation of Self-Report Measures, once the FT was completed, a BT was performed with two goals: (i) to ensure the identification of language issues and (ii) to detect translation problems linked to cultural adaptation issues. Indeed, as translation biases related to cultural aspects of each country were possible, a cultural check was required to ensure homogeneity (17, 20, 33, 34, 47). To this aim, in each country, an FP researcher and a linguist analyzed all BT propositions and compared them with the original HSCL-25 version to establish whether there was any significant difference in terms of meaning. Their report was submitted to a consensus group whose task was to clarify the nature of each FT-BT discrepancy from three problem areas: (i) BT problems were eliminated if the difference was explained by an incorrect BT; (ii) FT problems were defined as an anomaly in transcribing the original English (semantic/idiomatic differences relative to the original English version); and (iii) cultural effects (CE) were considered validated if there was no linguistic problem with the translation, but the item needed to be modified to be understood by the patients in their own "everyday" language (**Figure 1**).

This led to a linguistically stable, definitive translation that maintained the HSCL-25 meaning (i.e., structure and question order and method of use) for each involved country.

Ethical request: The EGPRN French team was in charge of checking the volunteering process and confirming the absence of potential conflicts of interest for all participants. The Ethics Committee of the approved the whole process.

The EGPRN French team recruited all NIs and obtained their consent, managed the voluntary participation in the study and produced an absence of conflict-of-interest statement.

Each NI asked participants to sign the informed consent.

RESULTS

NI Panel Description

The NI panel included 11 NIs (including $n = 8$ women) from eight European countries. They were all FPs, EGPRN members, and fluent in English. Ten NIs practiced in urban areas of more than 5,000 inhabitants and one worked in an urban area with 2,000–5,000 inhabitants. Eight had also teaching duties in addition to being researchers (total number of publications by the panel members: 152). The mean number of years of practice and of research were 21.3 and 12.4 years, respectively. In the panel, two NIs were from two distinct cultural regions of coastal

TABLE 1 | National investigators' panel.

Experts	Gender	Country	Academic Status	Number of inhabitants	Practice type	Number of international publications	Years of practice	Years of research
9	F	Bulgaria	Teacher/Researcher	>5,000	FP group practice	9	14	12
7	F	Croatia	Teacher/Researcher	>5,000	Alone	6	20	12
8	F	Croatia	Teacher/Researcher	>5,000	FP group practice	18	30	20
11	M	France	Teacher/Researcher	>5,000	FP group practice	11	20	5
5	F	Germany	Researcher	2,000–5,000	Ceased practicing 2 years previously	19	23	5
10	F	Germany	Researcher	>5,000	FP group practice	4	18	7
3	F	Greece	Teacher/Researcher	>5,000	FP and paramedic group practice	14	30	18
4	M	Italy	Researcher	>5,000	FP group practice	23	7	6
6	M	Poland	Teacher/Researcher	>5,000	FP group practice	20	30	12
2	F	Spain (Cataluña)	Teacher/Researcher	>5,000	FP group practice	13	22	25
1	F	Spain (Galicia)	Teacher/Researcher	>5,000	FP group practice	15	20	14

F, female; M, male; FPs, family practice physicians.

Spain (Catalonia and Galicia), and two were Croats. The other countries were each represented by a single NI (**Table 1**).

Forward Translation

For the Delphi consensus procedure, 14 (Germany) to 31 experts (Spain) were recruited. In compliance with the selection criteria, they were all FPs and fluent in English. The expert panel included 215 FPs (111 men and 104 women). Among them, 20 worked in a city of <2,000 inhabitants, 36 in a city with 2,000–5,000 inhabitants, and 159 in a city with >5,000 inhabitants. Their clinical experience was analyzed according to years of practice (mean: 16.4 years of experience) (**Table 2**).

In Poland, Bulgaria, Germany, Spain, and the Catalonia region of Spain, there was only one Delphi round, and two rounds in the other countries. Almost all translation proposals for each item of the HSCL-25 questionnaire were accepted in one round (273/320: 85.3%) (**Table 3**). The other proposals for which consensus was not reached went through a second round. The NI and the forward official translator synthesized the experts' comments to produce a new translation proposition for the second round.

Some Translation Issues Required a Second Proposal and Another Delphi Round

In Croatian, eleven proposals were rejected in the first round. For example, for item #17 ("Feeling blue"), the first proposal was "Bili ste tužni," which was considered to be too focused on melancholia, and was modified to "Bili ste sjetni," closer to the concept of sadness. All new proposals were accepted during the second round.

As a German version of the HCL-25 was already available, the German NIs proposed that their expert panel would discuss this version, without producing a new FT. All items were accepted in the first Delphi round. At this step, the German NIs stopped the procedure. No cultural check was performed.

Nine Greek proposals were rejected in the first round. For example, for item #1 ("Being scared for no reason"): the first proposal "Είμαι τρομοκρατημένος χωρίς αιτία" was considered too strong. Consensus was reached on the second proposal: "Είμαι τρομαγμένος χωρίς αιτία." All new proposals were accepted during the second round.

In the French translation, consensus was not reached on 18 proposals in the first round and needed further specification in the second round. For example, for item #25 ("Sleep disturbance"), the first proposal was "Vous n'arrivez pas à dormir" that was modified to "Votre sommeil était perturbé," closer to the English word: "disturbance." All new proposals were accepted during the second round.

In the Italian translation, consensus was not reached on five proposals during the first round. For example, for item #5 ("Heart racing"), the first proposal "Avere tachicardia" was considered too focused on clinical symptoms and was modified to "Sentire il cuore battere veloce," which was more familiar according to the reviewers. All new proposals were accepted during the second round.

In the Spanish Galician translation, consensus was not reached on three proposals in the first round. For example, for item #6 ("Trembling"), the first proposal was "Trema," the present indicative of the verb "Tremar." The second proposal was "Ten tremores" and was accepted in the second round. All new proposals were accepted during the second round.

Backward Translation and Cultural Check

The initial instructions, the 25 items, the quotation and the explanatory sentences were all back-translated into English by the BT team. In total, 36 propositions were analyzed. All BTs were compared linguistically to the original. Differences were noted for

TABLE 2 | Characteristics of each country expert panel.

	N (women)	Practice (mean years)	Number of inhabitants in the practice area			Academic researcher and/or teacher		Number of publications	Participants in the second Delphi round
			<2,000	2,000–5,000	>5,000	Number	Experience (mean, years)		
Bulgaria	22 (13)	20.5	1	5	16	5	5.4	8	No second round
Catalonia	22 (9)	15.7	0	2	20	20	10.5	22	No second round
Croatia	16 (13)	19.2	1	1	14	16	11.5	15	15
France	16 (7)	12.5	1	7	8	15	6.3	11	15
Galicia	20 (6)	22.3	0	0	20	17	13.1	19	20
Germany	14 (8)	16.7	0	3	11	9	10	6	No second round
Greece	26 (13)	10.9	10	9	7	24	5.1	26	15
Italy	18 (6)	17.2	3	2	13	13	14	12	No second round
Poland	30 (18)	11.9	4	6	20	26	13.1	10	No second round
Spain	31 (11)	19.5	0	1	30	27	12	30	No second round
Total	215 (104)	15.55	20	36	178	172	10.1	159	4 Second round

submission to the NIs and the consensus group. Three consensus group meetings were necessary with national feedback between each. The main adaptations, produced as a result of national feedback and the consensus resulting from the cultural check, are described below.

By Languages and Language Groups

Croatia: 8 items were different (2 were BT problems, and 8 required a cultural adaptation).

The main cultural aspect was the use of the present perfect, which is a tense of state and not of action, commonly employed in daily life. Therefore, in items #2, 7, 9, and 10, "feeling" was replaced by "you have been." Only one item seemed to be stronger than in the original version. Indeed, "Faintness," was replaced by "Weakness," but in Croatian this is equivalent to faintness.

Bulgaria: 3 items were different (2 were BT problems, and 1 required a cultural adaptation).

"Feeling low in energy" became "A sense of low energy." Overall, the Bulgarian translation was the most stable among the three Slavic languages.

Poland: 13 items were different (7 were BT problems, and 6 required a cultural adaptation).

Most problems resulted from a conceptual issue. For instance, in Polish, "Heart racing" became "Palpitations," "Trembling" became "Tremors," and "An effort" was translated into "A burden." "Headache" was translated into "Headaches" in Polish for grammatical reasons.

In all three slavic languages (Croatian, Bulgarian, and Polish), "Feeling restless" was translated into "Anxiety" because there is no equivalent word to express these ideas. A word-by-word translation, in that case, was impossible.

For the Greek language, the translation was mainly based on an adaptation according to gender. The experts concluded that there was a general CE affecting all parts of the scale. However, no real difference in meaning was detected, and the Greek HSCL-25 scale remained stable relative to the original.

France: 5 items were different (4 were BT problems, and 1 required a cultural adaptation).

For the French scale, the present tense is normally used in everyday language. However, the past tense was used in the FT. In everyday life French, the past tense is considered an older, upper-class language style. Therefore, all tenses were modified. For instance, "Tout était un effort pour vous" became "Tout est un effort pour vous" in the final version.

Italy: 7 items were different (6 were BT problems, and 1 required a cultural adaptation).

In the Italian scale, the male plural form was used because this is the usual way of speaking/writing; the translation had to be modified according to gender.

Spain: 6 items were different (1 was a BT problem, and 5 required a cultural adaptation).

"Feeling no interest" was translated in "No siente interes por nada" in standard Spanish, and "Worthless feeling" became "Feeling useless." However, in Standard Spanish, "inutil" means also "worthless."

Catalonia: 7 items were different (4 were BT problems, and 3 required a cultural adaptation).

Galicia: 5 items were different (1 was a BT problem, and 4 required a cultural adaptation).

In the Galician scale, item #14 "Losing sexual interest," was translated into "Loss of sexual interest" that expresses a state, and not an action (the original English version); however, the local experts considered it a normal way of speaking/writing in that language.

In the Galician and Catalan translations, "Blame oneself" turned into "Blame yourself" in the BT because the term "oneself" is not commonly employed.

For the Hispanic languages, the translation had to be modified according to gender. The item "Faintness" was translated into "Weakness" (e.g., "Debilidad," "Debilitat," and "Debilidade" in standard Spanish, Catalan and Galician respectively). Similarly, the item "Heart racing" was translated into "Palpitations" (i.e., "Palpitaciones" and "Palpitacions" in the standard Spanish and Galician versions).

TABLE 3 | Results of the first Delphi round.

Item/Country	Galicia	Castile	Catalonia	France	Italy	Bulgaria	Croatia	Greece	Germany	Poland
1 Being scared for no reason	C	C	C	C	C	C	C	NC	C	C
2 Feeling fearful	C	C	C	C	C	C	NC	C	C	C
3 Faintness	C	C	C	NC	NC	C	NC	NC	C	C
4 Nervousness	C	C	C	C	C	C	C	C	C	C
5 Heart racing	C	C	C	NC	C	C	C	C	C	C
6 Trembling	NC	C	C	NC	NC	C	C	C	C	C
7 Feeling tense	C	C	C	C	C	C	C	C	C	C
8 Headache	C	C	C	C	C	C	C	C	C	C
9 Feeling panic	C	C	C	NC	C	C	NC	C	C	C
10 Feeling restless	NC	C	C	NC	C	C	NC	C	C	C
11 Feeling low in energy	C	C	C	C	C	C	NC	NC	C	C
12 Blaming oneself	C	C	C	NC	NC	C	C	C	C	C
13 Crying easily	C	C	C	C	C	C	C	NC	C	C
14 Losing sexual interest	C	C	C	NC	C	C	NC	C	C	C
15 Feeling lonely	C	C	C	NC	C	C	NC	C	C	C
16 Feeling hopeless	C	C	C	C	C	C	NC	C	C	C
17 Feeling blue	C	C	C	NC	C	C	NC	C	C	C
18 Thinking of ending one's life	C	C	C	C	C	C	C	NC	C	C
19 Feeling trapped	C	C	C	NC	C	C	C	C	C	C
20 Worrying too much	C	C	C	NC	C	C	NC	NC	C	C
21 Feeling no interest	C	C	C	NC	C	C	NC	NC	C	C
22 Feeling that everything is an effort	C	C	C	C	C	C	C	C	C	C
23 Feelings of worthlessness	C	C	C	NC	C	C	C	NC	C	C
24 Poor appetite	C	C	C	C	C	C	C	NC	C	C
25 Sleep disturbance	NC	C	C	NC	C	C	C	C	C	C
26 Choose the best answer for how you felt over the past week	C	C	C	NC	C	C	C	C	C	C
27 Not at all	C	C	C	C	NC	C	C	C	C	C
28 A little	C	C	C	NC	C	C	C	C	C	C
29 Quite a bit	C	C	C	C	C	C	C	C	C	C
30 Extremely	C	C	C	C	C	C	C	C	C	C
31 The HSCL-25 score is calculated by dividing the total score (sum score of items) by the number of items answered (ranging between 1.00 and 4.00). It is often used as the measure of distress.	C	C	C	NC	NC	C	C	C	C	C
The patient is considered as a "probable psychiatric case" if the mean rating on the HSCL-25 is ≥1.55.										
32 A cut-off value of ≥1.75 is generally used for diagnosis of major depression defined as "a case in need of treatment." This cut-off point is recommended as a valid predictor of mental disorder as assessed independently by clinical interview, somewhat depending on diagnosis and gender.	C	C	C	NC	C	C	C	C	C	C
The administration time of HSCL 25 is 5–10 min										

C, consensus; NC, no consensus.

For All of Languages

Item #17 "Feeling Blue" generated a CE in six of the nine languages. A word-by-word rendition was impossible and required a cultural adaptation.

Items #15 "Feeling lonely," #18 "Thinking of ending one's life," #19 "Feeling trapped" and #25 "Sleep disturbance" remained stable after the BT.

Concerning the scale instructions and the quotation question, the BT was different from the original version in nine items, except the explanation concerning the time required to fill in the scale. Many translation problems were related to "cultural" effects. For example: in French, some terms were replaced by typical expressions commonly employed in questionnaires: e.g., "pencil-and-paper" was

TABLE 4 | Final translation of the HSCL-25 in nine European languages: items 1–25.

HSCL-25 Original version	Greece	Poland	Bulgaria	Croatia	Castile	Catalonia	Galicia	Italy	France
Choose the best answer for how you felt over the past week	Επιλέξτε την καλύτερη απάντηση για το πώς αισθανθήκατε την τελευταία εβδομάδα	Wybierz najlepsza odpowiedz	Изберете отговора, който най-добре описва как сте се чувствали през изминалата седмица	Izaberite jedan odgovor koji najbolje opisuje kako ste se osjećali tijekom prošlog tjedna:	Elija la respuesta que mejor describa cómo se ha sentido durante la semana pasada	Triï la millor resposta per indicar com s'ha sentit en la darrera setmana	Escolla a resposta que mellor describa como se sentiu durante a semana pasada	Scegliere la risposta più adatta su come ti sei sentito/a nell'ultima settimana	Veuillez choisir la réponse qui décrit le mieux comment globalement vous vous sentiez toute la semaine dernière
Being scared for no reason	Είμαι τρομαγμένος/η χωρίς αιτία	Bać sie bez powodu	Чувство за уплаха без причина	Bili ste bezrazložno uplašeni	Se asusta sin motivo	Estar espantat/ espantada sense motiu aparent	Asústase sen motivo	Avere paura senza motivo	Vous avez peur sans raison
Feeling fearful	Αισθάνομαι φοβισμένος /η	Poczucie strachu	Чувство за страх	Bojali ste se	Siente miedo	Sentir por	Ten medo	Sentirsi impauriti	Vous vous sentez effrayé
Faintness	Αίσθημα λιποθυμιάς	Omdlenia	Отпадналост	Bili ste slabi	Debilidad	Debilitat	Debilidade	Sensazione di mancamento	Vous avez une sensation d'étourdissement
Nervousness	Νευρικότητα	Nerwowość	Нервност	Bili ste nervozni	Nerviosismo	Nerviosisme	Nerviosismo	Esseri nervosi	Vous vous sentez nerveux
Heart racing	Ταχυπαλμία	Kołatanie serca	Сърцебиене	Ubrzano vam je lupalo srce	Palpitaciones	Cor accelerat	Palpitacións	Sentire il cuore battere veloce	Vous avez l'impression que votre cœur bat anormalement vite
Trembling	Τρεμούλα	Drzenia	Треперене	Drhtali ste	Tiembla	Tremola	Ten tremores	Tremore	Vous avez la sensation de trembler
Feeling tense	Αισθάνομαι υπερένταση	Poczucie napiecia	Чувство за напрежение	Bili ste napeti	Se siente tenso/a	Sentir-se tens/a	Séntese tenso/a	Sensazione di tensione	Vous vous sentez tendu
Headache	Πονοκέφαλος	Bóle głowy	Главоболие	Boljela vas glava	Dolor de cabeza	Mal de cap	Dor de cabeza	Avere mal di testa	Vous avez des maux de tête
Feeling panic	Αισθάνομαι πανικό	Uczucie paniki	Чувство за паника	Bili ste u panici	Siente pánico	Sensació de pànic	Sente pánico	Sensazione di panico	Vous vous sentez paniqué
Feeling restless	Αισθάνομαι ταραχή	Uczucie niepokoju	Чувство на безпокойство	Bili ste uznemireni	Siente inquietud	Sensació d'inquietud	Séntese inquedo/a	Sensazione di irrequietezza	Vous vous sentez agité

(Continued)

TABLE 4 | Continued

HSCL-25 Original version	Greece	Poland	Bulgaria	Croatia	Castile	Catalonia	Galicia	Italy	France
Feeling low in energy	Αισθάνομαι ότι δεν έχω ενέργεια	Poczucie braku energii	Усещане за понижена енергия	Niste imali dovoljno energije	Siente que le falta energía	Sensació de manca d'energia	Sente que lle falta enerxía	Sentirsi senza energia	Vous manquez d'énergie
Blaming oneself	Κατηγορώ τον εαυτό μου	Obwinianie samego siebie	Самообвинение	Okrivljavali ste se	Se culpa a sí mismo/a	Culpar-se un/a mateix/a	Cúlpase a si mesmo/a	Avere sensi di colpa	Vous ressentez une sensation de culpabilité
Crying easily	Εύκολο κλάμα	Płaczliwość	Плачливост	Bili ste plačljivi	Llora con facilidad	Plora fàcilment	Chora con facilidade	Piangere facilmente	Vous pleurez facilement
Losing sexual interest	Απώλεια σεξουαλικού ενδιαφέροντος	Utrata zainteresowań sfera seksualna	Загубата на сексуален интерес	Niste bili zainteresirani za spolni odnos	Pierde el interés sexual	Pèrdua de l'interès sexual	Perda do interese sexual	Perdere l'interesse sessuale	Vous ressentez un désintérêt pour la vie sexuelle
Feeling lonely	Αισθάνομαι μοναξιά	Poczucie osamotnienia	Чувство за самотност	Bili ste usamljem	Se siente solo/a	Sentir-se sol/a	Séntese só/soa	Sentirsi soli	Vous avez une sensation de solitude
Feeling hopeless	Αισθάνομαι απελπισμένος/η	Poczucie beznadziejności	Чувство за безнадежност	Osjećali ste sebeznadno	Se siente sin esperanza	Sentiment de desesperança	Séntese sen esperanza	Sentirsi senza speranza	Vous vous sentez désespéré
Feeling blue	Νοιώθω πεσμένος/η	Poczucie przygnebienia	Чувствам се нещастен	Bili ste sjetni	Se siente triste	Sentir-se trist/a	Séntese triste	Sentirsi tristi	Vous avez le cafard
Thinking of ending one's life	Σκέφτομαι να δώσω τέλος στη ζωή	Myśli samobójcze	Мисли за самоубийство	Razmišljali ste da si oduzmete Život	Piensa en acabar con su vida	Pensa en treure's la vida	Pensa en acabar coa súa vida	Avere pensieri di togliersi la vita	Vous avez pensé à mettre fin à votre vie
Feeling trapped	Αισθάνομαι παγιδευμένος /η	Poczucie uwiezienia	Чувствам се като в капан	Osjećali ste sekao da ste u klopci	Se siente atrapado/a	Sentir-se atrapat/atrapada	Séntese atrapado/a	Sentirsi intrappolati	Vous vous sentez pris au piège
Worrying too much	Ανησυχώ υπερβολικά	Zamartwianie sie	Притеснявам се твърде много	Bili ste previše zabrinuti	Se preocupa en exceso	Preocupar-se en excés	Preocúpase en exceso	Preoccuparsi troppo	Vous vous inquiétez trop
Feeling no interest	Αισθάνομαι ότι τίποτε δεν είναι ενδιαφέρον	Poczucie braku zainteresowań	Чувство за загуба на интерест	Bez interesa za bilo što	No siente interés por nada	Sentiment de manca d'interès	Non sente interese por nada	Non avere alcun interesse	Plus rien ne vous intéresse
Feeling that everything is an effort	Αισθάνομαι ότι για το καθε τί χρειάζεται να κάνω προσπάθεια	Poczucie, ze wszystko jest ciezarem	Чувство, че всичко изисква усилие	Sve vam je bilo naporno	Siente que todo le cuesta un esfuerzo	Sentir que tot és un esforç	Sente que todo lle supón un esforzo	Sentire che tutto è uno sforzo	Tout est un effort pour vous
Feelings of Worthlessness	Αισθάνομαι ότι δεν αξίζω τίποτε	Poczucie bezwartościowości	Чувство за безполезност	Osjećali ste se bezvrijedno	Se siente inútil	Sentir-se inútil	Séntese inútil	Sentirsi inutili	Vous avez le sentiment d'être bon à rien
Poor appetite	Μείωση της όρεξης	Słaby apetyt	Лош апетит	Imali ste slab apetit	poco apetito	Pèrdua de la gana	Poco apetito	Avere poco appetito	Vous avez perdu l'appétit
Sleep disturbance	Διαταραχές ύπνου	Zaburzenia snu	Нарушения на съня	Imali ste problema sa spavanjem	Problemas para dormir	Alteració de la son	Alteracións do sono	Disturbi del sonno	Votre sommeil est perturbé

TABLE 5 | Final translation of the HSCL-25 in nine European languages: scale instructions.

Scale instructions original version	Greece	Poland	Bulgaria	Croatia	Spain	Catalonia	Galicia	Italy	France
The HSCL-25 score is based on pencil-and-paper self-report of 25 questions about the presence and intensity of anxiety and depression symptoms over the last week.	Η βαθμολογία του ΗΣΨΛ-25 βασίζεται σε γραπτό ερωτηματολόγιο αυτοαξιολόγησης 25 ερωτήσεων σχετικά με την παρουσία και την ένταση των συμπτωμάτων άγχους και κατάθλιψης κατά την τελευταία εβδομάδα. Οι συμμετέχοντες απαντούν σε μία από τις τέσσερις κατηγορίες για κάθε ερώτημα σε μια κλίμακα εύρους τεσσάρων βαθμών με τιμές από 1 μέχρι 4.	Ocena testu HSCL-25 oparta jest na kwestionariuszu 25 pytań, w którym zakreśla sie na papierze obecność i nasilenie objawów leku i depresji w ciagu ostatniego tygodnia.	Резултатът от HSCL-25 се основава на самостоятелно попълнен инструмент на хартиен носител, включващ 25 въпроса за наличието и интензивността на симптоми на тревожност и депресия през последната седмица.	HSCL-25 skor sastoji se od 25 pitanja koja se rješavaju jednostavno olovkom i papirom, a temelji se na samoprocjeni prisutnosti i intenzitetu ansksioznih i depresivnih simptoma tijekom prošlog tjedna.	La puntuación HSCL-25 se basa en un cuestionario auto cumplimentado con lápiz y papel, de 25 preguntas sobre la presencia y la intensidad de ansiedad y síntomas depresivos en la última semana.	L'escala HSCL-25 es basa en un qüestionari auto administrat de 25 preguntes, sobre la presència i la intensitat de símptomes d'ansietat i depressió en la darrera setmana.	A puntuación HSCL-25 baséase nun cuestionario cumprimentado con lapis e papel, de 25 preguntas sobre a presenza e a intensidade de ansiedade e síntomas depresivos na última semana.	Il punteggio dell' HSCL-25 si basa sulla compilazione di un questionario di autovalutazione in cartaceo ("carta/penna") di 25 domande sulla presenza e intensità di sintomi di ansia e depressione nel corso dell'ultima settimana.	La HSCL-25 est un auto-questionnaire en 25 questions relatives à la présence et à l'intensité des symptômes d'anxiété et de dépression durant toute la semaine dernière.
Participants answer to one of four categories for each item on a four-point scale ranging from 1 to 4		Badani odpowiadaja na jedno z czterech mozliwych kategorii na skali mierzacej wartości od 1 do 4.	Участниците избират една от категориите за всяка позиция по скала от четири точки от 1.00 до 4.00.	Ispitanici odgovaraju jednom od četiri kategorija za svako pitanje na skali od 1-4.	Los/ las participantes responden una de cuatro categorías para cada ítem, en una escala de cuatro puntos que van desde 1 a 4.	Els/les participants responen a una de les quatre categories per a cada ítem en una escala de quatre punts que va de l'1 al 4.	Os participantes responden unha de catro categorías para cada ítem, nunha escala de catro puntos que van desde 1 a 4.	I partecipanti rispondono a una delle quattro categorie per ciascun sintomo su una scala di punteggio che va da 1 a 4.	Les participants cotent chaque proposition, sur une échelle en quatre points, cotée de 1 à 4.
1."Not at all"	Καθόλου	Wcale	Съвсем не	Nimalo	En absoluto	Gens	En absoluto	Per niente	Pas du tout d'accord
2."A little"	Λίγο	Troche	Незначително	Malo	Un poco	Una mica	Un pouco	Poco	Un peu d'accord
3."Quite a bit"	Αρκετά	Znacznie	Съвсем малко	Dosta	Bastante	Bastant	Bastante	Abbastanza	Plutôt d'accord
4."Extremely"	Πάρα πολύ	Bardzo mocno	Извънредно	Jako	Mucho	Molt	Moito	Moltissimo	Complètement d'accord

TABLE 6 | Final translation of the HSCL-25 in nine European languages: general instructions.

Scale instructions original version	Greece	Poland	Bulgaria	Croatia	Spain	Catalonia	Galicia	Italy	France
The HSCL-25 score is calculated by dividing the total score (sum score of items) by the number of items answered (ranging between 1.00 and 4.00). It is often used as the measure of distress.	Η βαθμολογία του ΗΣΨ-25 υπολογίζεται διαιρώντας τη συνολική βαθμολογία (αθροιστική βαθμολογία των ερωτημάτων), διά του αριθμού των ερωτημάτων που απαντήθηκαν (κυμαινόμενο μεταξύ του 1,00 έως 4,00). Συχνά χρησιμοποιείται για τη μέτρηση της δυσφορίας.	Wynik testu HSCL-25 jest obliczany poprzez podzielenie całkowitej liczby punktów (suma punktów z każdej pozycji testu) przez liczbę pozycji na które udzielono odpowiedzi (w skali od 1 do 4). Często służy on do pomiaru dystres.	HSCL-25 резултатът се изчислява, като се раздели общият брой точки (сбор точки по критерий) на броя на отговорените критерии (вариращи между 1,00 и 4,00). Той често се използва като мярка за страдание.	Skor HSCL-25 se izračunava dijeljenjem ukupnog zbroja (zbroj skora pojedinih pitanja) s brojem odgovorenih pitanje (raspon od 1,00 do 4,00). Obično se koristi za mjerenje distresa.	La puntuación del HSCL-25 se calcula dividiendo la puntuación total (sumando la puntuación de todos las preguntas) entre el número de respuestas (varía entre 1,00 y 4,00). Se usa habitualmente para medir el malestar psicológico.	La puntuació total del HSCL-25 es calcula dividint la suma de la puntuació dels diferents ítems pel número d'ítems contestats. El resultat total oscil·la entre 1,00 i 4,00. Aquesta escala sovint s'utilitza com a mesura del malestar psicològic.	A puntuación do HSCL-25 calcúlase dividindo a puntuación total (a suma de todas as preguntas) entre o número de respostas (cuxa puntuación oscila entre 1,00 e 4,00). Úsase de forma habitual para medir o nivel del malestar psicológico.	Il punteggio dell' HSCL-25 si calcola dividendo il punteggio totale (somma dei punteggi degli elementi) con il numero di elementi risposti (che variano da 1,00 a 4,00). Spesso si usa come misura di ansietà.	Le score du HSCL- 25 se calcule en divisant la somme des cotations des propositions par le nombre de réponses reçues. Le résultat final est compris entre 1,00 à 4,00. Il est couramment utilisé pour mesurer la souffrance psychologique.
The patient is considered as a "*probable psychiatric case*" if the mean rating on the HSCL-25 is ≥1.55.	Ο ασθενής θεωρείται σαν "πιθανό ψυχιατρικό περιστατικό" εάν η μέση βαθμολογία του ΗΣΨ-25 είναι '=1,55.	Pacjenta uważamy za "prawdopodobny przypadek psychiatryczny" jeśli średnia ocena w teście HSCL-25 jest >/ (wieksza lub równa) 1,55.	Пациентът се приема като "вероятно психиатричен случай," ако средната оценка по HSCL-25 е ^{3} 1,55.	Pacijent se smatra ≪ vjerojatno psihijatrijskim slučajem ≫ ako je srednja vrijednost na HSCL-25 ≥ 1,55.	El/la paciente se considera un "probable caso psiquiátrico" si el valor medio del HSCL-25 es ≥1,55.	El/la pacient és considerat/considerada com a " probable cas psiquiàtric " si la qualificació mitjana del HSCL-25 és ≥ 1,55.	Considérase que o/a paciente é un "caso psiquiátrico probable" se o valor medio do HSCL-25 é ≥ 1,55.	Il paziente è considerato come un "probabile caso psichiatrico" se il punteggio medio dell'HSCL-25 è ≥1,55.	Le patient est considéré comme ≪ probablement atteint d'un trouble psychiatrique ≫ si le score moyen du HSCL-25 est supérieur ou égal à 1,55.

(Continued)

TABLE 6 | Continued

Scale instructions original version	Greece	Poland	Bulgaria	Croatia	Spain	Catalonia	Galicia	Italy	France
A cut-off value of ≥1.75 is generally used for diagnosis of major depression defined as "*a case, in need of treatment*." This cut-off point is recommended as a valid predictor of mental disorder as assessed independently by clinical interview, somewhat depending on diagnosis and gender.	Το όριο του ˙= 1,75 γενικώς χρησιμοποιείται για τη διάγνωση της μείζονος κατάθλιψης που ορίζεται ως "περίπτωση που χρήζει θεραπείας." Αυτό το όριο συνίσταται σαν ένας έγκυρος προγνωστικός δείκτης ψυχικής διαταραχής, όπως εκτιμάται ανεξάρτητα από την κλινική εικόνα, η οποία εξαρτάται κάπως από τη διάγνωση και το φύλο.	Wartość graniczna>/ (wieksza lub równa) 1,75 ogólnie przyjmuje sie w diagnozowaniu ciezkiej depresji, definiowanej jako „przypadek wymagajacy leczenia." Wartość ta jest zalecana jako istotny czynnik w przewidywaniu obecności choroby psychicznej, wymagajacej jednak niezaleznego wywiadu klinicznego i w pewnym sensie zalezy od rozpoznania i płci.	Гранична стойност от [3] 1,75 обикновено се използва за диагностициране на тежка депресия и определя случая като "случай, нуждаещ се от лечение". Тази гранична стойност, получена независимо от клиничното интервю и зависеща до определена степен от диагнозата и пола, се препоръчва като валиден предиктор за психично разстройство.	Razdjelna točka (cut-off) ≥1,75 se koristi za dijagnozu velikog depresivnog poremećaja i to kao slučaj koji zahtjeva liječenje." Razdjelna točka se preporuča kao validni prediktor mentalnog poremećaja podjednako kao i sama procjena neovisnim kliničkim intervjuom, dijelom ovisan o dijagnozi i spolu.	Por lo general se usa un valor de corte de ≥1,75 para el diagnóstico de depresión mayor, definida como "un caso que necesita tratamiento ." Este valor de corte se considera un predictor válido de un trastorno mental, evaluado de forma independiente mediante entrevista clínica, aunque depende en parte del diagnóstico y el género.	Generalment s'utilitza un punt de tall ≥1,75 per al diagnòstic de la depressió major i es defineix com " cas que precisa de tractament." Es recomana aquest punt de tall com un predictor vàlid de trastorn mental com ho seria l'avaluació independent per entrevista clínica, depenent en part del diagnòstic i del gènere.	Polo xeral, úsase un valor de corte ≥ 1,75 para diagnosticar a depresión maior, definida como "un caso que precisa tratamento ." Este valor de corte recoméndase como un predictor válido dun trastorno mental, avaliado independentemente por medio de entrevistas clínicas, aínda que depende en parte do diagnóstico e do xénero.	Un cut-off che sia >=1,75 è normalmente usato per la diagnosi di depressione maggiore definita come "un caso che necessita di trattamento." Questo cut-off è raccomandato come un valido predittore di disordine mentale come valutato in modo indipendente da un colloquio clinico, dipendente in qualche modo dalla diagnosi e dal genere	Un score supérieur ou égal à 1,75 diagnostique généralement une dépression caractérisée et définit ≪ un patient nécessitant un traitement ≫. Ce seuil est considéré comme un score prédictif validé des troubles mentaux. Il a été évalué de manière indépendante par des études cliniques. Il varie peu quelles que soient les situations diagnostiques et le sexe.
The administration time of HSCL-25 is 5 to 10 minutes.	Ο χρόνος χορήγησης του ΗΣΨΛ 25 είναι 5 έως 10 λεπτά.	Czas na wykonanie testu HSCL 25 wynosi od 5 do 10 minut.	Времето за провеждане HSCL-25 е от 5 до 10 минути.	Vrijeme za ispunjavanje HSCL-25 je 5-10 minuta.	El tiempo de administración del HSCL-25 es de 5 a 10. minutos.	El temps d'administració del HSCL 25 és de 5 a 10 minuts.	O tempo de realización do HSCL-25 é de 5 a 10 minutos.	Il tempo di somministrazione dell'HSCL-25 è da 5 a 10 minuti.	Remplir le questionnaire HSCL-25 prend entre 5 et 10 minutes.

translated into "auto questionnaire" and "Not at all" by "Pas du tout d'accord."

Interestingly, there were translation similarities (often with stronger meanings or medical connotations) not only among languages belonging to the same linguistic group, but also among languages from different groups. The best example concerns item #3 "Faintness" that was translated into "Weakness" in Catalan, Standard Spanish, Galician, and also in Croatian, a term with a more prosaic than medical connotation.

At the end of the cultural analysis, the consensus group finally concluded that the meaning was not changed, and the translation was finalized in all nine languages (see **Tables 4–6**).

DISCUSSION

Using a three-step qualitative procedure, ecologically embedded in primary care, nine consensual translations of the HSCL-25 were obtained that were linguistically and culturally equivalent to the original version, in three language families (Hellenic, Slavic, and Romance). A German version already existed. The aim of this procedure was to meticulously track inconsistencies between local translations that could lead to misinterpretation. This methodical and transcultural validation ensured the transfer of the same content from one language to another and its reliability (17, 47).

The Greek translation remained the most stable, followed by Bulgarian. Item #17, "Feeling blue" was the most challenging to translate, followed by item #3 "Faintness" and item #5 "Heart racing." Some scales needed adaptations in terms of tense (French, Croatian) and in terms of gender (Greek, Italian, and Hispanic languages).

Research and Teaching Implications

Translation remains the most crucial step in the adoption of an instrument developed in another nation using a different language. Errors in translation may distort the original intent of the instrument, thus compromising its validity and reliability (48). Semantic issues might affect comparability in international studies because the same word is interpreted differently across countries and cultures (49, 50). Moreover, some terms and concepts may not exist in other languages or may have additional connotations that backward translations do not always reveal. Challenges arise not only because of the word-to-word literal translation, but also because of the linguistic form of the language, such as tone and syntax (51).

These nine translations of the HSCL-25 are now linguistically similar, in terms of meaning, compared to the original version. However, they need further testing because this first step is not sufficient to complete the task of translating them and supporting their cross-cultural validity. The external and internal validity of each version has to be evaluated to ensure that their reliability is comparable with that of the original version. This will be achieved through quantitative studies in primary care daily practices (52).

In most European countries, FPs can now use this tool for family practice research studies and for assessing depression severity in their patients. The use of such a shared tool may have a great impact on the feasibility of future research on depression in primary care. It will facilitate data comparison among European countries and consequently it will allow statistical reviews on depression epidemiology and symptoms throughout Europe. The use of the same instrument can support the conceptualization of the studied phenomenon across different studies, and the findings can then be compared (21).

LIMITATIONS

A key point of this study was the FPs' involvement in the translation to reduce the selection bias and to ensure the sample quality nevertheless as in all formalized expert consensus procedure a selection bias of the experts remained possible. Our experts' sample was constructed purposively and if we did our best to avoid a selection bias it remained possible. As described by many translators when discussing scientific translation work, a "specialist" in the field (e.g., primary care daily practice in this case) should take a last look at the translation (20, 53, 54) and become the main arbiter of the quality of the final translation (55). Thus, specific attention was paid in choosing FP researchers and certified bilingual translators with sufficient knowledge of healthcare terminology a selection bias was still possible.

The cultural control check was as consistent as possible. It involved a careful step-by-step analysis to prevent confusion bias and linguistic problems. The formalized consensus method allowed the gradual evaluation of each item to strengthen the accuracy of the validated translations and designing the end-result. Nevertheless, an information or a confusion bias remained possible. Our results should be interpretated in the light of these limitations.

CONCLUSION

A translation of the HSCL-25 in which homogeneity is ensured is now available for Spain and its culturally distinct regions of Galicia and Catalonia, and also for France, Greece, Italy, Poland, Bulgaria, and Croatia. It is now ready to be tested in actual and representative primary care populations to further validate its test-parameters.

DATA AVAILABILITY STATEMENT

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by CPP (Protection of Persons Committee) of the University Hospital of Brest. Reference CPP: CPP Ouest VI 872; Study ID RCB: n°2014-A01790-47. The patients/participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

PN designed the study, collected data, led meetings, drafted the article, and submitted it for publication. JL designed the study, collected data, attended meetings, and reviewed the article. MG-L and BL reviewed the article. RA, DK, SC, MH, HL, AC, MR-B, AS, SA, and CL participated as national investigator. SS-S participated as co-national investigator. TM reviewed the article and gave final approval for the version to be published. HV and PV designed the study, reviewed the article, and gave final approval for the version to be published. All authors contributed to the article and approved the submitted version.

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